

**COMPUTER PROGRAM PRODUCTS AND SYSTEMS FOR RAPIDLY  
CHANGING THE SOLUTION ENVIRONMENT AROUND SENSORS**

**Abstract**

5       The invention provides computer program products for coordinating the  
movement of cells and other components in a microfluidic substrate with data  
acquisition. The microfluidic workstation may be used to examine the physiological  
responses of ion channels, receptors, neurons, and other cells to fluidic streams. The  
system may also be useful for screening compound libraries to search for novel classes of  
10    compounds, screening members of a given class of compounds for effects on specific ion  
channel proteins and receptors, and to rapidly determine dose-response curves in cell-  
based assays.

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